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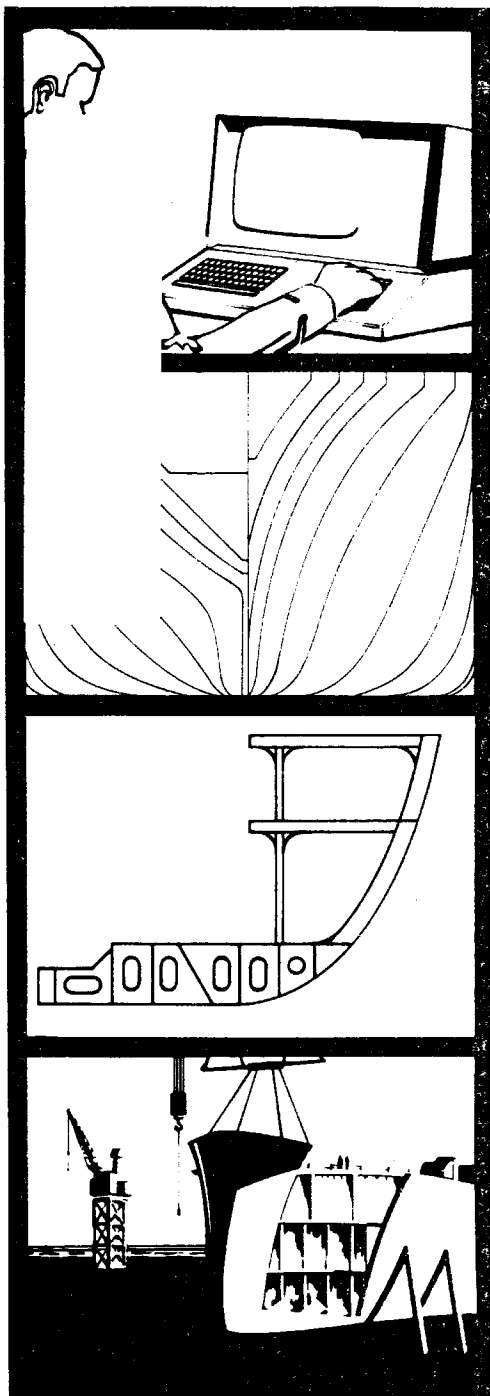
Paper No. 20: How Smaller Shipyards are Profiting through N/C

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HOW SMALLER SHIPYARDS ARE PROFITTING
THROUGH N/C

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INTRODUCTION

Since its introduction to U.S. shipbuilding some ten years ago, N/C Lofting and plate cutting has been regarded by most as a production tool for the larger shipyards only.

This presentation is intended to dispel those thoughts by demonstrating active usage of N/C Lofting by the smaller shipyards as a tool to increase production efficiency and reduce costs.

How Smaller Shipyards Are Profiting Through N/C

In this presentation, we will discuss the use of N/C Lofting by the following shipyards and boatbuilders:

Atlantic Marine, Inc.
Kings Craft Corp.
Marinette Marine Corp.
McDermott Shipyards
Peterson Builders, Inc.
Service Machine & Shipbuilding Co.
Steiner Shipyard
Tacoma Boatbuilding Co. , Inc.
Toche Enterprises

This is by no means a complete list of shipyards and boatbuilders currently using N/C lofting and cutting in production, but represents those with which we are more familiar through service contracts with them.

ATLANTIC MARINE, INC.

Atlantic Marine, Inc. has had one vessel, a 65-foot stock trawler, faired by N/C. They recently sub-contracted the fairing and N/C Lofting of a 79-foot trawler with the steel to be cut at Avondale Shipyards, Inc. , and shipped to their facility. Scheduled completion of the lofting is July 15, 1977.

At present, Atlantic Marine, Inc. is considering the purchase of an N/C burning machine to serve their production needs, as well as cutting for other fabricators.

KINGS CRAFT CORP.

Kings Craft Corporation sub - contracted the fairing and partial N/C lofting of an all aluminum 75-foot home cruiser last year. The material for this vessel was cut by Reynolds Aluminum supply Company in Birmingham, Alabama on their N/C controlled plasma cutting machine.

MARINETTE MARINE CORP.

Marinette Marine Corporation has been actively engaged in N/C plate cutting since 1972. To date, they have completed, or have under construction, the following N/C lofted vessels:

- 150 Ft. 'ARTUBAR' Tugs
- 225 Ft. Fleet Tugs,T-AFT
- 34 Ft. Mini-ATC's
- 56 Ft. LCM6'S
- 136 Ft. LCU'S
- 109 Ft. YTB's
- 65 Ft. PB's

McDERMOTT SHIPYARDS

McDermott Shipyards, Morgan City Division, installed an N/C cutting machine in 1973. To date, they have completed or have under construction the following N/C lofted vessels: 126-foot tug for Robin Towing Corp. , 136-foot tug for Crowley, 175-foot catamaran tug for McDermott, 126-foot tug for Moran, and a 210-foot Supply vessel for Offshore Logistics.

McDermott Shipyards, New Iberia Division, recently subcontracted the N/C fairing and lofting of a 180-foot offshore supply vessel, with the steel to be cut at the Morgan City Division.

PETERSON BUILDERS , INC.

Peterson Builders, Inc. recently made the decision to adopt N/C plate cutting in their yard. They have subcontracted the total N/C lofting of the PGG-1 Class Gunboats to include: all stiffener lengths, end-cut templates, frame bending information, roll sets and shape templates, along with the N/C tapes required to cut the entire vessel. The cutting will be done on a new machine purchased by Peterson Builders, utilizing plasma arc.

SERVICE MACHINE & SHIPBUILDING CO.

subcontracted to Avondale Shipyards, Inc. , where all plate parts from the keel to the pilot house were cut.

STEINER SHIPYARD

Steiner Shipyard recently sub-contracted the N/C lofting and cutting of all the plate parts for a 75-foot stock trawler. All the plate parts for the vessel from the keel to the pilot house top will be N/C cut at Avondale Shipyards, Inc. Current projections call for cutting of two vessels at a time, with ten or more total to be cut over a period of about ten weeks.

TACOMA BOAT BUILDING CO., INC.

Tacoma Boatbuilding Co., Inc. purchased an N/C cutting machine with plasma are capabilities in the fall of 1976. They have since sub-contracted the total N/C lofting of the SWOB -1 Class Sewage Waste Offloading Barges for the U.S. Navy, and the 140-foot WYTM Cutter for the U.S. Coast Guard. The barge contract is well underway, with several units complete at this time. The WYTM has just recently started production with the cutting of parts for the first module.

TOCHE ENTERPRISES

Toche Enterprises, a new and expanding shipyard in Mississippi, sub-contracted the N/C lofting and cutting of all plate parts for two (2) 121-foot oceangoing tug boats. The steel for these vessels was cut at Avondale Shipyards, Inc. and shipped by truck to the Toche facility where it was sub-assembled and erected. The first of these vessels is completed, and the second is scheduled for launching shortly.

CONCLUSION

In discussing their experience of fitting parts that have been lofted and cut by N/C, each of the yards concluded that there had been a definite improvement in the quality of fitting, and a subsequent reduction of man-hours required for that task. Along with the reduction in fitting man-hours, there would also be a reduction of welding man-hours, since the former has a definite influence on the latter.

Actual cost saving figures were not put forth by any of the yards for several reasons; however, some have indicated a total savings on steel construction in the order of ten percent. Our personal opinion is that a savings on the order of twenty per cent of total steel construction is a conservative and reasonable expectation with the use of N/C lofted and cut parts.

The trend today by the smaller yards seems to be toward the use of N/C as a means of reducing costs and thus becoming more competitive. As more N/C burning machines are installed around the country, more yards are placed in a position to take advantage of N/C lofting and cutting and the subsequent cost savings inherent in its application.

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